

TROPICAL STORM MAC (04W)

Mac, from inception, was a "classic" monsoon depression - slow to develop, difficult to position and forecast. As Super Typhoon Lola (03W) was developing east of Guam, the precursor of Mac spawned in the monsoon trough in the South China Sea.

On May 20th, the Significant Tropical Weather Advisory (ABPW PGTW) mentioned a poorly defined area of convection in the monsoon trough, which was located over water and paralleled the southern coast

of mainland China. Estimated maximum sustained surface winds of 20 kt (10 m/sec) and a minimum sea-level pressure (MSLP) of 998 mb were present. After several false starts, the organizing convection separated from the maximum cloudiness zone and a Tropical Cyclone Formation Alert was issued for the disturbance, at 230400Z, as it passed south of Hong Kong. The first warning was issued on Tropical Storm Mac (Figure 3-04-1) at 250000Z as development

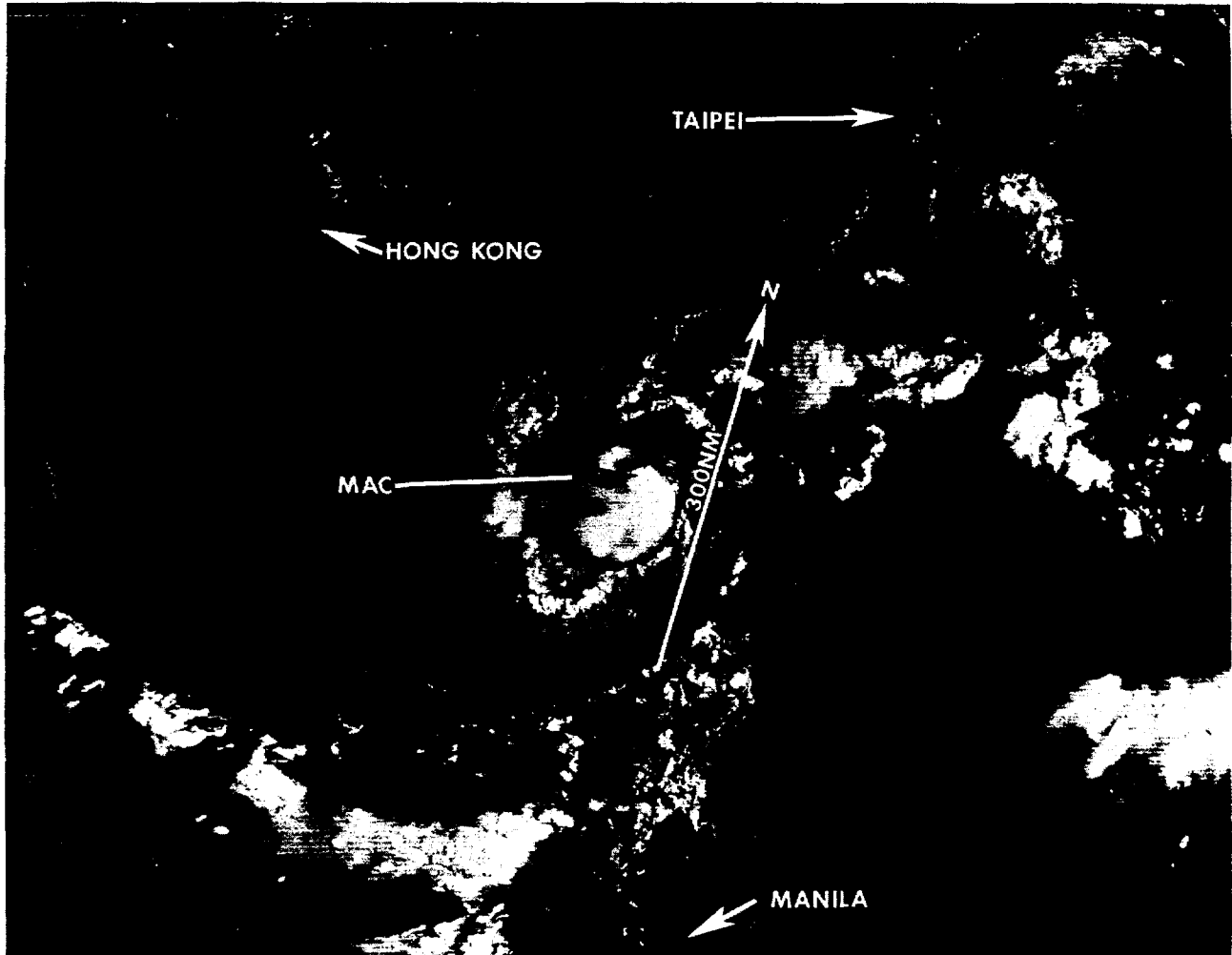
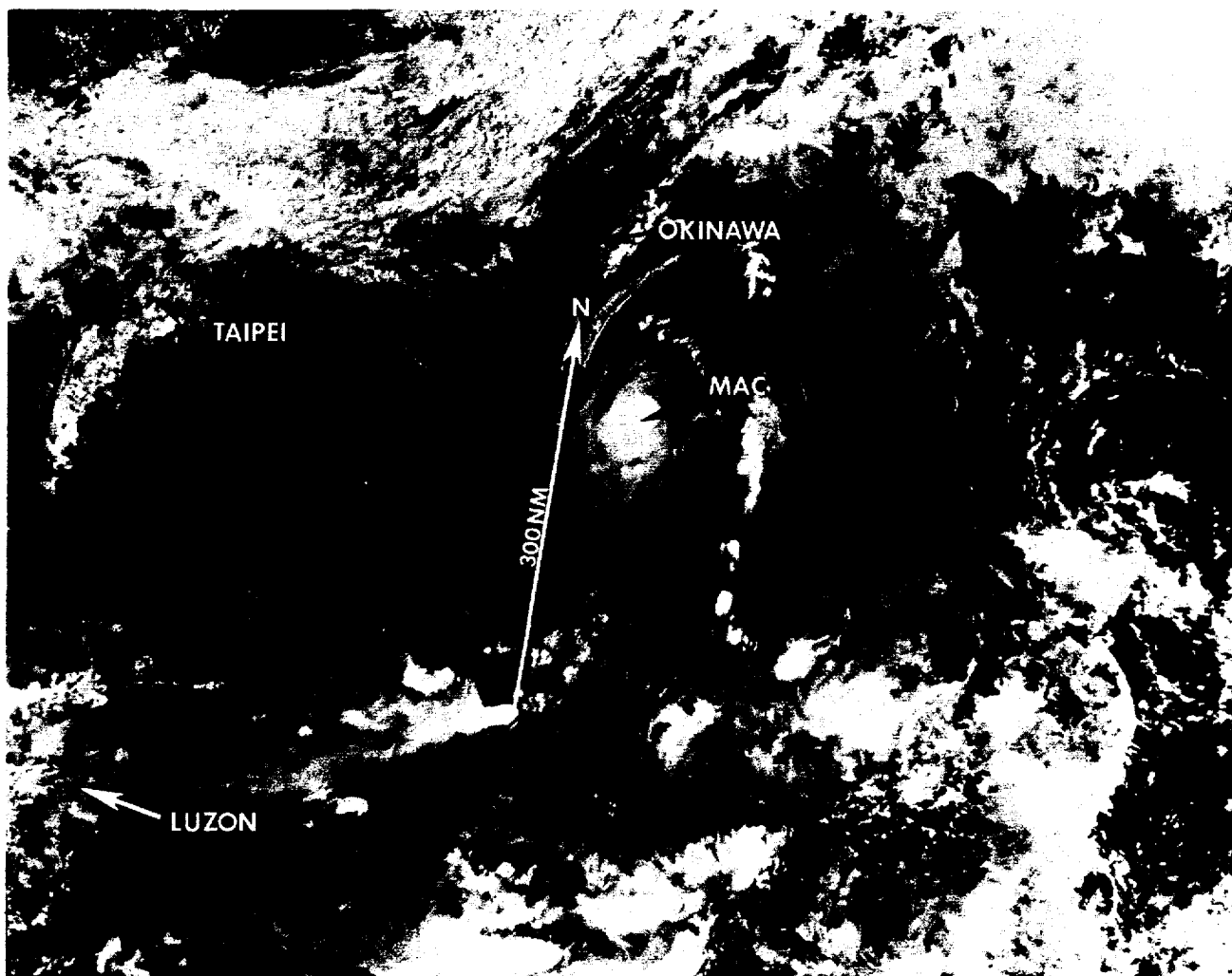


Figure 3-04-1. Tropical Depression 04W just an hour and a half after the first warning was issued (250131Z May DMSP visual imagery).

continued. Mac moved south of Taiwan and changed course toward the north-northeast as its intensity peaked at 45 kt (23 m/sec). At 270900Z, Mac appeared to become almost quasi-stationary. However, acceleration and an eastward movement commenced by 280600Z. Mac also weakened due to increased vertical shear and was, as a result, downgraded to a tropical

depression on the 28th.

By May 29th, Mac's low-level circulation center was partially exposed (Figure 3-04-2). The last warning was issued at 291200Z as Mac began dissipating over water and redevelopment appeared less likely due to the persistent strong vertical wind shear.



*Figure 3-04-2. Mac's partially exposed low-level circulation center as seen six hours before the last warning was issued (290550Z May NOAA visual imagery).*